

# uCertify

## Course Outline

**Certified Information Systems Security Professional  
(CISSP)**



05 Jul 2024

1. Pre-Assessment
2. Exercises, Quizzes, Flashcards & Glossary  
Number of Questions
3. Expert Instructor-Led Training
4. ADA Compliant & JAWS Compatible Platform
5. State of the Art Educator Tools
6. Award Winning Learning Platform (LMS)
7. Chapter & Lessons  
Syllabus  
Chapter 1: Introduction  
Chapter 2: Security Governance Through Principles and Policies  
Chapter 3: Personnel Security and Risk Management Concepts  
Chapter 4: Business Continuity Planning  
Chapter 5: Laws, Regulations, and Compliance  
Chapter 6: Protecting Security of Assets  
Chapter 7: Cryptography and Symmetric Key Algorithms  
Chapter 8: PKI and Cryptographic Applications  
Chapter 9: Principles of Security Models, Design, and Capabilities  
Chapter 10: Security Vulnerabilities, Threats, and Countermeasures  
Chapter 11: Physical Security Requirements  
Chapter 12: Secure Network Architecture and Components  
Chapter 13: Secure Communications and Network Attacks  
Chapter 14: Managing Identity and Authentication  
Chapter 15: Controlling and Monitoring Access  
Chapter 16: Security Assessment and Testing  
Chapter 17: Managing Security Operations  
Chapter 18: Preventing and Responding to Incidents  
Chapter 19: Disaster Recovery Planning

Chapter 20: Investigations and Ethics

Chapter 21: Software Development Security

Chapter 22: Malicious Code and Application Attacks

Chapter 23: Flashcards

Chapter 24: Practice 1

Chapter 25: Practice 2

Chapter 26: Practice 3

Chapter 27: Practice 4

Videos and How To

#### 8. Practice Test

Here's what you get

Features

#### 9. Performance Based labs

Lab Tasks

Here's what you get

## 1. Pre-Assessment

Pre-Assessment lets you identify the areas for improvement before you start your prep. It determines what students know about a topic before it is taught and identifies areas for improvement with question assessment before beginning the course.

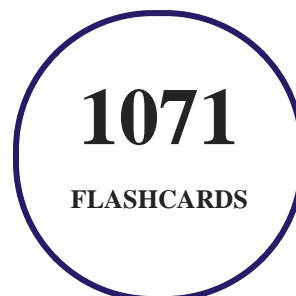
## 2. Exercises

There is no limit to the number of times learners can attempt these. Exercises come with detailed remediation, which ensures that learners are confident on the topic before proceeding.



### 3. flashcards

Flashcards are effective memory-aiding tools that help you learn complex topics easily. The flashcard will help you in memorizing definitions, terminologies, key concepts, and more. There is no limit to the number of times learners can attempt these. Flashcards help master the key concepts.



### 4. Expert Instructor-Led Training

uCertify uses the content from the finest publishers and only the IT industry's finest instructors. They have a minimum of 15 years real-world experience and are subject matter experts in their fields. Unlike a live class, you can study at your own pace. This creates a personal learning experience and gives you all the benefit of hands-on training with the flexibility of doing it around your schedule 24/7.

### 5. ADA Compliant & JAWS Compatible Platform

uCertify course and labs are ADA (Americans with Disability Act) compliant. It is now more accessible to students with features such as:

- Change the font, size, and color of the content of the course
- Text-to-speech, reads the text into spoken words
- Interactive videos, how-tos videos come with transcripts and voice-over
- Interactive transcripts, each word is clickable. Students can clip a specific part of the video by clicking on a word or a portion of the text.

JAWS (Job Access with Speech) is a computer screen reader program for Microsoft Windows that reads the screen either with a text-to-speech output or by a Refreshable Braille display. Student can easily navigate uCertify course using JAWS shortcut keys.

## 6. State of the Art Educator Tools

uCertify knows the importance of instructors and provide tools to help them do their job effectively. Instructors are able to clone and customize course. Do ability grouping. Create sections. Design grade scale and grade formula. Create and schedule assessments. Educators can also move a student from self-paced to mentor-guided to instructor-led mode in three clicks.

## 7. Award Winning Learning Platform (LMS)

uCertify has developed an award winning, highly interactive yet simple to use platform. The SIIA CODiE Awards is the only peer-reviewed program to showcase business and education technology's finest products and services. Since 1986, thousands of products, services and solutions have been recognized for achieving excellence. uCertify has won CODiE awards consecutively for last 7 years:

- **2014**
  1. Best Postsecondary Learning Solution
- **2015**
  1. Best Education Solution
  2. Best Virtual Learning Solution
  3. Best Student Assessment Solution

4. Best Postsecondary Learning Solution
5. Best Career and Workforce Readiness Solution
6. Best Instructional Solution in Other Curriculum Areas
7. Best Corporate Learning/Workforce Development Solution

- **2016**

1. Best Virtual Learning Solution
2. Best Education Cloud-based Solution
3. Best College and Career Readiness Solution
4. Best Corporate / Workforce Learning Solution
5. Best Postsecondary Learning Content Solution
6. Best Postsecondary LMS or Learning Platform
7. Best Learning Relationship Management Solution

- **2017**

1. Best Overall Education Solution
2. Best Student Assessment Solution
3. Best Corporate/Workforce Learning Solution
4. Best Higher Education LMS or Learning Platform

- **2018**

1. Best Higher Education LMS or Learning Platform
2. Best Instructional Solution in Other Curriculum Areas
3. Best Learning Relationship Management Solution

- **2019**

1. Best Virtual Learning Solution
2. Best Content Authoring Development or Curation Solution
3. Best Higher Education Learning Management Solution (LMS)

- **2020**

1. Best College and Career Readiness Solution
2. Best Cross-Curricular Solution
3. Best Virtual Learning Solution

## 8. Chapter & Lessons

uCertify brings these textbooks to life. It is full of interactive activities that keeps the learner engaged. uCertify brings all available learning resources for a topic in one place so that the learner can efficiently learn without going to multiple places. Challenge questions are also embedded in the chapters so learners can attempt those while they are learning about that particular topic. This helps them grasp the concepts better because they can go over it again right away which improves learning.

Learners can do Flashcards, Exercises, Quizzes and Labs related to each chapter. At the end of every lesson, uCertify courses guide the learners on the path they should follow.

### Syllabus

#### Chapter 1: Introduction

- Overview of the CISSP Exam
- The Elements of This Study Guide
- Study Guide Exam Objectives
- Objective Map

#### Chapter 2: Security Governance Through Principles and Policies

- Security 101
- Understand and Apply Security Concepts
- Security Boundaries
- Evaluate and Apply Security Governance Principles

- Manage the Security Function
- Security Policy, Standards, Procedures, and Guidelines
- Threat Modeling
- Supply Chain Risk Management
- Summary
- Study Essentials

### Chapter 3: Personnel Security and Risk Management Concepts

- Personnel Security Policies and Procedures
- Understand and Apply Risk Management Concepts
- Social Engineering
- Establish and Maintain a Security Awareness, Education, and Training Program
- Summary
- Study Essentials

### Chapter 4: Business Continuity Planning

- Planning for Business Continuity
- Project Scope and Planning
- Business Impact Analysis



- Continuity Planning
- Plan Approval and Implementation
- Summary
- Study Essentials

## Chapter 5: Laws, Regulations, and Compliance

- Categories of Laws
- Laws
- State Privacy Laws
- Compliance
- Contracting and Procurement
- Summary
- Study Essentials

## Chapter 6: Protecting Security of Assets

- Identifying and Classifying Information and Assets
- Establishing Information and Asset Handling Requirements
- Data Protection Methods

- Understanding Data Roles
- Using Security Baselines
- Summary
- Study Essentials

## Chapter 7: Cryptography and Symmetric Key Algorithms

- Cryptographic Foundations
- Modern Cryptography
- Symmetric Cryptography
- Cryptographic Life Cycle
- Summary
- Study Essentials

## Chapter 8: PKI and Cryptographic Applications

- Asymmetric Cryptography
- Hash Functions
- Digital Signatures
- Public Key Infrastructure
- Asymmetric Key Management

- Hybrid Cryptography
- Applied Cryptography
- Cryptographic Attacks
- Summary
- Study Essentials

## Chapter 9: Principles of Security Models, Design, and Capabilities

- Secure Design Principles
- Techniques for Ensuring CIA
- Understand the Fundamental Concepts of Security Models
- Select Controls Based on Systems Security Requirements
- Understand Security Capabilities of Information Systems
- Summary
- Study Essentials

## Chapter 10: Security Vulnerabilities, Threats, and Countermeasures

- Shared Responsibility
- Data Localization and Data Sovereignty

- Assess and Mitigate the Vulnerabilities of Security Architectures, Designs, and Solution Elements
- Client-Based Systems
- Server-Based Systems
- Industrial Control Systems
- Distributed Systems
- High-Performance Computing (HPC) Systems
- Real-Time Operating Systems
- Internet of Things
- Edge and Fog Computing
- Embedded Devices and Cyber-Physical Systems
- Microservices
- Infrastructure as Code
- Immutable Architecture
- Virtualized Systems
- Containerization
- Mobile Devices
- Essential Security Protection Mechanisms

- Common Security Architecture Flaws and Issues
- Summary
- Study Essentials

## Chapter 11: Physical Security Requirements

- Apply Security Principles to Site and Facility Design
- Implement Site and Facility Security Controls
- Implement and Manage Physical Security
- Summary
- Study Essentials

## Chapter 12: Secure Network Architecture and Components

- OSI Model
- TCP/IP Model
- Analyzing Network Traffic
- Common Application Layer Protocols
- Transport Layer Protocols
- Domain Name System
- Internet Protocol (IP) Networking

- ARP Concerns
- Secure Communication Protocols
- Implications of Multilayer Protocols
- Segmentation
- Edge Networks
- Wireless Networks
- Satellite Communications
- Cellular Networks
- Content Distribution Networks (CDNs)
- Secure Network Components
- Summary
- Study Essentials

## Chapter 13: Secure Communications and Network Attacks

- Protocol Security Mechanisms
- Secure Voice Communications
- Remote Access Security Management
- Multimedia Collaboration

- Monitoring and Management
- Load Balancing
- Manage Email Security
- Virtual Private Network
- Switching and Virtual LANs
- Network Address Translation
- Third-Party Connectivity
- Switching Technologies
- WAN Technologies
- Fiber-Optic Links
- Prevent or Mitigate Network Attacks
- Summary
- Study Essentials

## Chapter 14: Managing Identity and Authentication

- Controlling Access to Assets
- The AAA Model
- Implementing Identity Management

- Managing the Identity and Access Provisioning Life Cycle
- Summary
- Study Essentials

## Chapter 15: Controlling and Monitoring Access

- Comparing Access Control Models
- Implementing Authentication Systems
- Zero-Trust Access Policy Enforcement
- Understanding Access Control Attacks
- Summary
- Study Essentials

## Chapter 16: Security Assessment and Testing

- Building a Security Assessment and Testing Program
- Performing Vulnerability Assessments
- Testing Your Software
- Training and Exercises
- Implementing Security Management Processes and Collecting Security Process Data



- Summary
- Exam Essentials

## Chapter 17: Managing Security Operations

- Apply Foundational Security Operations Concepts
- Address Personnel Safety and Security
- Provision Information and Assets Securely
- Apply Resource Protection
- Managed Services in the Cloud
- Perform Configuration Management (CM)
- Manage Change
- Manage Patches and Reduce Vulnerabilities
- Summary
- Study Essentials

## Chapter 18: Preventing and Responding to Incidents

- Conducting Incident Management
- Implementing Detection and Preventive Measures
- Logging and Monitoring

- Automating Incident Response
- Summary
- Study Essentials

## Chapter 19: Disaster Recovery Planning

- The Nature of Disaster
- Understand System Resilience, High Availability, and Fault Tolerance
- Recovery Strategy
- Recovery Plan Development
- Training, Awareness, and Documentation
- Testing and Maintenance
- Summary
- Study Essentials

## Chapter 20: Investigations and Ethics

- Investigations
- Major Categories of Computer Crime
- Ethics

- Summary
- Study Essentials

## Chapter 21: Software Development Security

- Introducing Systems Development Controls
- Establishing Databases and Data Warehousing
- Storage Threats
- Understanding Knowledge-Based Systems
- Summary
- Study Essentials

## Chapter 22: Malicious Code and Application Attacks

- Malware
- Malware Prevention
- Application Attacks
- Injection Vulnerabilities
- Exploiting Authorization Vulnerabilities
- Exploiting Web Application Vulnerabilities
- Application Security Controls

- Secure Coding Practices
- Summary
- Study Essentials

Chapter 23: Flashcards

Chapter 24: Practice 1

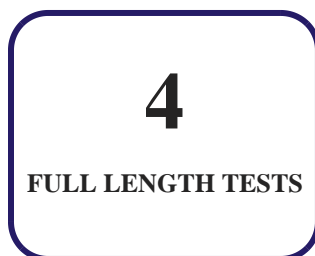
Chapter 25: Practice 2

Chapter 26: Practice 3

Chapter 27: Practice 4

## 9. Practice Test

**Here's what you get**



## Features

Each question comes with detailed remediation explaining not only why an answer option is correct but also why it is incorrect.

### Unlimited Practice

Each test can be taken unlimited number of times until the learner feels they are prepared. Learner can review the test and read detailed remediation. Detailed test history is also available.

Each test set comes with learn, test and review modes. In learn mode, learners will attempt a question and will get immediate feedback and complete remediation as they move on to the next question. In test mode, learners can take a timed test simulating the actual exam conditions. In review mode, learners can read through one item at a time without attempting it.

## 10. Performance Based Labs

uCertify's performance-based labs are simulators that provides virtual environment. Labs deliver hands on experience with minimal risk and thus replace expensive physical labs. uCertify Labs are cloud-based, device-enabled and can be easily integrated with an LMS. Features of uCertify labs:

- Provide hands-on experience in a safe, online environment
- Labs simulate real world, hardware, software & CLI environment
- Flexible and inexpensive alternative to physical Labs
- Comes with well-organized component library for every task
- Highly interactive - learn by doing
- Explanations and remediation available
- Videos on how to perform

## Lab Tasks

Here's what you get

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